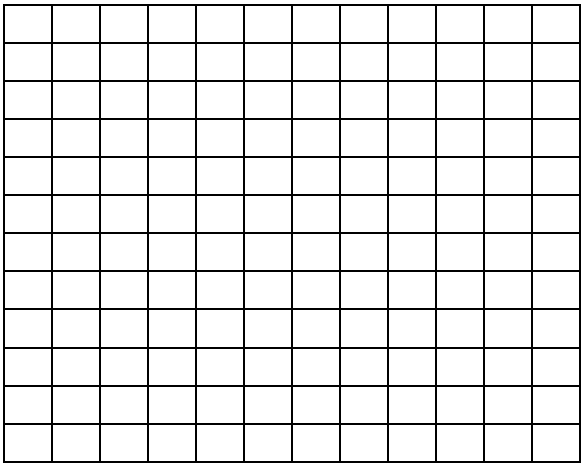
Waste Not Want Not

Below is a list of waste (trash) generated in the United States from 1970 to 1995 as well as the amount of waste recycled.

Waste generated and recycled

Year	Waste Generated (millions of tons)	Waste Recycled (millions of tons)
1970	122	9
1980	152	15
1985	164	16
1990	197	34
1991	197	38
1992	202	41
1993	205	45
1994	210	52
1995	208	56

- Using the data from the table, make a scatter plot on the graph below using the x-axis for waste generated and the y-axis for waste recycled.



- Find an equation for a line of best fit and draw it on the scatter plot.

- Predict the amount of waste recycled for 250 million tons of waste generated. Use mathematics to explain how you determined your answer. Use words, symbols, or both in your explanation.

- Estimate the amount of waste generated for 50 million tons of waste recycled. Use mathematics to explain how you determined your answer. Use words, symbols, or both in your explanation.

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Answer Key

Check scatter plots for appropriate labels, scales, and data points.

Line of best fit: $Y = .5x - 61$

According to my equation, for 250 million ton of waste generated there will be 64 million tons of recycled waste.

Sample explanation: $Y = .5(250) - 61 = 64$

Two hundred twenty two million tons of waste was generated for 50 million tons of waste recycled.

Sample explanation: I found the x value when y = 50 on my graph.